Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended). A spectrofluorimetrically detectable luminescent resonance energy transfer transparent ~~solid~~ composition consisting essentially of at least one energy transfer acceptor lanthanide ion complex having an emission spectrum peak in the range from 350 to 2000 nanometers, and a luminescence-enhancing amount of at least one energy transfer donor selected from the group consisting of a fluorophore and a lumiphore,

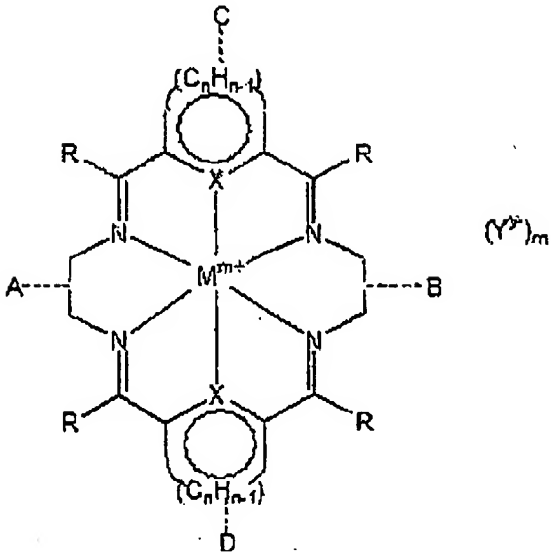
wherein the composition is a solid composition.

~~wherein said fluorophore and lumiphore are not a ligand of yttrium or a 3-valent lanthanide element having atomic number 59-71~~.

Claim 2 (original). A composition according to claim 1 in which the energy transfer acceptor lanthanide ion complex is covalently attached to an analyte-binding species.

Claim 3 (original). A composition according to claim 1 in which the energy transfer acceptor lanthanide ion complex includes a macrocycle.

Claim 4 (original). A composition according to claim 3 in which the lanthanide macrocycle compound has the formula



wherein

M is a metal ion selected from the group consisting of a lanthanide having atomic number 57-71, an actinide having atomic number 89-103 and yttrium(III) having atomic number 39;

R is a substituent selected from the group consisting of hydrogen, straight-chain and branched alkyl, aryl-substituted alkyl, aryl, and alkyl-substituted aryl, with the proviso that such substituent does not limit the solubility of the resultant complex,

X is selected from the group consisting of nitrogen, sulfur and oxygen and forms a part of a ring structure selected from the group consisting of pyridine, thiophene or furan, respectively, at the positions marked X;

n is 2 or 3;

Y is an anion, with the proviso that such anion does not limit the solubility of the resultant complex or otherwise interfere with either the coupling procedure or the energy transfer leading to fluorescence;

m is the ionic charge of the metal ion in the macrocyclic complex;

y^- is the ionic charge of the anion Y in the macrocyclic complex; and

A, B, C, and D are substituents independently selected from the group consisting of hydrogen, straight-chain alkyl, branched-chain alkyl, aryl-substituted alkyl, aryl, alkyl-substituted aryl, reactive functionality, functionalized alkyl, functionalized aryl-substituted alkyl, functionalized aryl, and functionalized alkyl-substituted aryl.

Claim 5 (original). A composition according to claim 1 in which the energy transfer acceptor lanthanide ion complex includes a cryptate.

Claim 6 (original). A composition according to claim 1 in which the energy transfer lumiphore is a selected from the group consisting of an organic ligand, a salt of an organic ion, a metal ion complex of an organic ligand and mixture thereof that after excitation emits energy absorbed by the energy transfer acceptor lanthanide ion complex.

Claim 7 (canceled).

Claim 8 (currently amended). A unitary luminescence enhancing solution consisting essentially of solvent, a luminescence-enhancing amount of at least one energy transfer donor selected from the

group consisting of a fluorophore and a lumiphore, that after drying results in a solid that enhances the luminescence of an energy transfer acceptor lanthanide ion complex by a mechanism other than completing the complexation of the lanthanide ion

wherein the luminescence enhancing solution is a single-phase solution.

Claim 9 (original). A unitary luminescence enhancing solution according to claim 8, in which the lumiphore is selected from the group consisting of an organic molecule, melion, and metal ion complex.

Claim 10 (previously amended). A unitary luminescence enhancing solution according to claim 8, further consisting essentially of a surfactant, wherein the concentration of surfactant is less than the critical micellar concentration.

Claim 11 (original). A unitary luminescence enhancing solution according to claim 8, in which a luminescence-enhancing amount of at least one energy transfer donor selected from the group consisting of a fluorophore and a lumiphore, after excitation emits energy absorbed by the energy transfer acceptor lanthanide ion complex.

Claim 12 (original). A unitary luminescence enhancing solution according to claim 9, in which the metal ion of the donor metal ion complex is a lanthanide.

Claim 13 (original). A composition according to claim 8 in which the concentration of the energy transfer donor species is in the range from 1 x 10^{-6} moles per liter to saturation, preferably from 1 x 10^{-5} moles per liter to 1 x 10^{-2} moles per liter.

Claim 14 (currently amended). A method for analysis of an insoluble or insolubilized sample suspected of containing at least one analyte, said method comprising the steps:

a) Contacting the sample with a solution that contains a solvent and an energy transfer acceptor lanthanide ion complex which is conjugated to an analyte-binding species, such that the conjugation to the analyte-binding species can be achieved either directly or indirectly through a bridging molecule, and/or by being a tag of a tagged-polymer-conjugate of said member;

b) Incubating the sample with the solution under binding conditions, whereby the member of the specific combining pair binds to the analyte;

c) Adding to the sample a ~~unitary~~ single-phase luminescence enhancing solution;

d) Removing the solvent of the ~~unitary~~ single-phase luminescence enhancing solution to produce a homogeneous solid composition that includes both the energy transfer donor compound and the energy transfer acceptor complex;

e) Subjecting the homogeneous solid composition to excitation energy in the range of 200-1500 nm, whereby enhanced luminescence in the range of 350-2000 nm is generated;

f) Monitoring the luminescence of the homogeneous solid composition for at least one of the following:

1) presence and/or concentration and/or location of the energy transfer acceptor lanthanide ion complex; and

2) presence and/or concentration and/or location of the product of the interaction of the analyte with the energy transfer acceptor lanthanide ion complex which is conjugated to an analyte-binding species.

Claim 15 (currently amended). A method for analysis of a first solution suspected of containing at least one analyte, comprising the steps

a) Binding a member of a specific combining pair that is specific to an analyte to a solid support;

b) Washing the solid support to remove any unbound member of a specific combining pair;

c) Adding to a first known volume of the first solution a second known volume of a second solution that contains an energy transfer acceptor lanthanide ion complex which is conjugated to an analyte, such that conjugation to the analyte is achieved either directly or indirectly through a bridging molecule, and/or by being a tag of a tagged-polymer-conjugate of the member;

d) Incubating the combined solutions under binding conditions with the solid support, whereby the member of the specific combining pair binds to the analyte;

e) Adding to the combined solutions a ~~unitary~~ single-phase luminescence enhancing solution;

f) Removing the solvent of the ~~unitary~~ single-phase luminescence enhancing solution to produce a homogeneous solid composition that includes both the energy transfer donor compound and the energy transfer acceptor complex;

g) Subjecting the homogeneous solid composition to excitation energy in the range of 200-1500 nm, whereby enhanced luminescence in the range of 350-2000 nm is generated;

h) Monitoring the luminescence of the homogeneous solid composition to measure the decrease in the emission intensity resulting from the competition of the unconjugated analyte with the conjugated analyte.

Claim 16 (new). The composition according to claim 1 wherein the fluorophore or lumiphore energy transfer donor compound is not an ionic compound of gadolinium (III).

Claim 17 (new). The composition according to claim 1 wherein the fluorophore or lumiphore energy transfer donor compound is not a complex of gadolinium (III).

Claim 18 (currently amended). A spectrofluorimetrically detectable luminescent resonance energy transfer transparent ~~solid~~ composition consisting essentially of at least one energy transfer acceptor lanthanide ion complex having an emission spectrum peak in the range from 350 to 2000 nanometers, and a luminescence-enhancing amount of at least one energy transfer donor selected from the group consisting of a fluorophore and a lumiphore, wherein the energy transfer acceptor lanthanide ion complex includes a cryptate

and further wherin the composition is a solid composition.